

CLAIMS

I Claim,

1. An improved structure of a dimmer device essentially comprised of a backlight module including a reflector mask, multiple light sources, multiple optical films and a LCD arranged in sequence from inside out; wherein, each light source being made of stripe or U-shape or any other continuously curved light tube, and disposed at a proper spacing at where between the reflector mask and the diffuser plate is characterized by that the backlight module being provided with at least one dimmer device; lights from both sides of the light source being properly refracted and reflected by the dimmer device to evenly diffuse towards the diffuser plate.
- 15 2. An improved structure of a dimmer device as claimed in Claim 1, wherein, the dimmer device is related to a solid stick structure.
3. An improved structure of a dimmer device as claimed in Claim 1, wherein, the dimmer device is related to a hollow stick structure.
- 20 4. An improved structure of a dimmer device as claimed in Claim 1, wherein, the long stick shaped dimmer device is adhered to the reflector mask.
5. An improved structure of a dimmer device as claimed in Claim 1, an insertion mechanism is provided to the dimmer device for the dimmer device to be incorporated to the reflector mask or a mechanism provided below the reflector mask.
- 25 6. An improved structure of a dimmer device as claimed in Claim 5, multiple locking pins are provided on the

surface of the insertion mechanism of the dimmer device to be bounded to the reflector mask, and respective locking holes are provided on the reflector mask or on the mechanism disposed below the reflector mask for the dimmer device to be incorporated to the reflector mask.

5

7. An improved structure of a dimmer device as claimed in Claim 1, multiple threaded holes are provided on the surface of the insertion mechanism of the dimmer device to be bounded to the reflector mask, and the locking hole is provided on the reflective mask to permit the insertion of a screw to fasten the dimmer device to the reflector mask or the mechanism below the reflector mask.

10

15 8. An improved structure of a dimmer device as claimed in Claim 1, wherein, at least one surface of the dimmer device is embossed.

9. An improved structure of a dimmer device as claimed in Claim 1, wherein, the embossment is made at least one straight line or curve or the combination of both in a form of V-, U-, or C-shaped cut.

20

10. An improved structure of a dimmer device as claimed in Claim 1, at least one surface of the dimmer device is provided with multiple convex surfaces in various curvatures.

25

11. An improved structure of a dimmer device as claimed in Claim 1, the dimmer device relates to a transparent stick structure.

12. An improved structure of a dimmer device as claimed in Claim 1, the dimmer device relates to a white stick

30

structure.

13. An improved structure of a dimmer device as claimed in Claim 1, the dimmer device relates to a matted stick structure.

5 14. An improved structure of a dimmer device as claimed in Claim 1, wherein, at least one surface of the dimmer device is locally or entirely treated with ink, matted, or printed, or distributed with concave and convex points in either round, rectangular, diamond or

10 polygonal form.

15. An improved structure of a dimmer device as claimed in Claim 1, wherein, the optical films are comprised of a lower diffuser sheet, a prism and a reflective polarizing sheet.

15 16. An improved structure of a dimmer device as claimed in Claim 1, wherein, the optical films are comprised of 1~3 diffuser sheets, 0~2 brightness enhancement films, and 0~1 reflective polarizing sheet.

17. An improved structure of a dimmer device as claimed

20 in Claim 1, wherein, the dimmer device is made of Polycarbonate (PC), or Polymethyl methacrylate (PMMA), or Polyethylene Terephthalate (PET) into a transparent stick structure.

18. An improved structure of a dimmer device as claimed

25 in Claim 1, wherein, the dimmer device is made of Polycarbonate (PC), or Polymethyl methacrylate (PMMA), or Polyethylene Terephthalate (PET) into a white stick structure.

19. An improved structure of a dimmer device as claimed

30 in Claim 1, wherein, the dimmer device is made of

transparent plastic materials including Polycarbonate (PC), or Polymethyl methacrylate (PMMA) added with diffusion agent into a matted stick structure.

5

10

15

20

25

30